



Request for Proposal for Network Installation

July 16, 2018

PROPOSALS DUE: August 20, 2018, 3:00 PM Local Time



Network Installation RFP

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1. GENERAL INFORMATION

District Overview

Stockton East Water District is a public agricultural and urban wholesale water supplier in the eastern portion of San Joaquin County. The District covers a total of 143,000 acres; (103,000 acres agricultural and 40,000 acres urban), serving a population of 300,000. SEWD provides potable water to the Stockton urban area via three water agencies (collectively referred to as the Urban Contractors) and raw water to agricultural lands east of Stockton. Average water demand in SEWD is approximately 225,000 AF/yr., with about 68% of the water used for agriculture, and about 32% for urban use.

SEWD operates and maintains approximately 125 miles of water conveyance facilities, including a tunnel, canals, stream channels, and buried pipelines, and a water treatment plant (WTP) with a treated water capacity of 62 MGD. The WTP uses conventional treatment processes, including two pump stations, flocculation, sedimentation, filtration, and disinfection.

Purpose

The Stockton East Water District (SEWD, District) is issuing this Request for Proposal (RFP) to invite firms to submit a Proposal for services to provide (furnish and install) new networking equipment and appurtenances for a complete installation, relocate existing servers and networking equipment, terminate new fiber-optic cables, and extend networking cabling as required to implement the design as shown in this RFP.

Coverage & Participation

SEWD reserves the right not to enter into any contract, to add and/or delete elements, or to change any element of the coverage and participation at any time without prior notification and without any liability or obligation of any kind or amount. In any event, SEWD shall not be liable for any pre-contractual expenses incurred by any proposer or selected consultant. Consultants shall not include any such expenses as part of the price proposed in response to this RFP.

SEWD shall be held harmless and free from any and all liability, claims, or expenses whatsoever incurred by, or on behalf of, any person or organization responding to this RFP. SEWD expressly reserves the right to reject any and all RFPs or to waive any irregularity or information in any RFP or in the RFP procedure and to be the sole judge of the responsibility of any proposer and of the suitability of the materials and/or services to be rendered.

SEWD may ask RFP finalists to present oral briefings of their Proposals. All finalists may be required to participate in negotiations and submit such price, technical, or other revisions of their RFPs as may result from negotiations. SEWD also reserves the right to award the contract without discussion, based upon the initial Proposals.



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Original RFP Document

SEWD shall retain the RFP, and all related terms and conditions, exhibits and other attachments, in original form in an archival copy. Any modification of these, in the Consultant's submission, is grounds for immediate disqualification.

Said proposals will be evaluated and results will be made public after completion of the negotiation process with the selected consultant. SEWD reserves the right to reject any or all proposals and to waive any informalities or irregularities in any proposal or in the proposal process.

Schedule of Events

The following is a tentative schedule that applies to this RFP, but may change in accordance with the organization's needs or unforeseen circumstances. Changes will be communicated by e-mail to all invited Consultants.

Issuance of RFP	July 16, 2018	
Mandatory Site Visit	July 30, 2018	Site Visit – 1:00 PM local time
Technical Questions/Inquiries Due	August 6, 2018	3:00 PM local time
Response to Questions	August 13, 2018	
Proposal Due Date	August 20, 2018	3:00 PM local time
Initial Evaluation Complete	August 27, 2018	
Estimated Award Notification	September 10, 2018	

Background Information

The District completed an IT/SCADA Master Plan in December 2013 that established a baseline of current IT/SCADA environments, and describes the District's goals, objectives and vision for IT and SCADA systems. The Network Design Services Project followed the Master Plan and developed the Network Design included in this RFP.



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2. PROPOSAL PREPARATION INSTRUCTIONS

Consultant's Understanding of the RFP

In responding to this RFP, the Consultant accepts full responsibility to understand the RFP in its entirety, and in detail, including making any inquiries to SEWD as necessary to gain such understanding. SEWD reserves the right to disqualify any Consultant who demonstrates less than such understanding. Further, SEWD reserves the right to determine, at its sole discretion, whether the Consultant has demonstrated such understanding. That right extends to cancellation of award, if award has been made. Such disqualification and/or cancellation shall be at no fault, cost, or liability whatsoever to SEWD.

Good Faith Statement

All information provided by SEWD in this RFP is offered in good faith. Individual items are subject to change at any time. SEWD makes no certification that any item is without error. SEWD is not responsible or liable for any use of the information or for any claims asserted there from.

Communication

Verbal communication shall not be effective unless formally confirmed in writing by a specified procurement official in charge of managing this RFP process. In no case shall verbal communication govern over written communication.

1.1.1 Consultant Inquiries - Applicable terms and conditions herein shall govern communications and inquiries between SEWD and Consultants as they relate to this RFP. Inquiries, questions, and requests for clarification related to this RFP are to be directed in writing to:

Mr. Michael D. Johnson, P.E.
Assistant General Manager
Stockton East Water District

Mail to: PO Box 5157
Stockton, CA 95205

Deliver to: 6767 East Main Street
Stockton, CA 95215

Phone: (209) 948-0333
Fax: (209) 948-0423
E-mail: mjohnson@sewd.net



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1.1.2 Formal Communications shall include, but are not limited to:

- Questions submitted in writing and received prior to the Technical Questions Due Date. Inquiries for clarifications that will not require addenda may be submitted verbally at any time during this process.
- Errors and omissions in this RFP and enhancements. Consultants shall recommend to SEWD any discrepancies, errors, or omissions that may exist within this RFP. With respect to this RFP, Consultants shall recommend to SEWD any enhancements, which might be in SEWD best interests. These must be submitted in writing and received prior to the Technical Questions Due Date.
- Addenda to this RFP.

1.1.3 Addenda: SEWD will make a good-faith effort to provide a written response to each question or request for clarification that requires addenda within one (1) week of the Technical Questions Due Date. All questions, answers, and addenda will be shared with all recipients via the District website at:

www.sewd.net

SEWD will not respond to any questions or requests for clarification that require addenda, if received after the Technical Questions Due Date.

Proposal Submission

Proposals must be sealed and delivered to:

Mr. Michael D. Johnson, P.E.
Assistant General Manager
Stockton East Water District

Mail to: PO Box 5157
Stockton, CA 95205

Deliver to: 6767 East Main Street
Stockton, CA 95215

on or prior to August 20, 2018, 3:00 PM local time. SEWD will not accept proposals delivered by fax or e-mail.

NOTE: Please mark the outside of the envelope with the following:

PROPOSAL FOR THE NETWORK INSTALLATION

Consultants are to submit 1 original copy of proposal marked "Original" and 5 copies marked "Copy". Each original and copy must be individually bound. Provide one electronic copy of your proposal in PDF format on CD, flash drive or other electronic media.



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Proposal Requirements

To maintain uniformity in the evaluation process, proposals shall be limited to a maximum of ten (10) pages. Paper size shall be limited to 8 ½" x 11" in the proposals except for tables for which 11" x 17" foldouts may be used. The text font shall not be smaller than size 11 except for within tables. The transmittal letter, table of contents, front and back covers, section dividers, and resumes are excluded from the page count. The proposal shall include the following sections in the order below:

1. Transmittal Letter

Include the primary consultant's name and business address, as well as the Project Manager's name, telephone number, and email address. Summarize your understanding of the project and briefly introduce your team. State the firm's acceptance of the provisions in SEWD's Standard Professional Services Agreement including insurance requirements, or any exceptions thereof. Identify the individual authorized to negotiate the contract on behalf of the consulting firm.

2. Relevant Project Experience

Include a list of the most recent projects for which the prime consultant has performed similar services of similar scope, size, and complexity. This list shall include the name, contact person, address, and phone number of each party for whom the service was provided, as well as a brief description of the service performed, the dollar amount of the contract, and the date the project was completed. Discuss whether the project was completed on time and within budget; if it was not, describe the original schedule and original budget and what changed. Likewise, list at least one project experience for each sub consultant on the team.

3. Consultant Team and Sub Consultant Staff

- a. Identify the prime consultant and sub consultants and their respective roles. Show the Project Manager and the key staff proposed for this project, including sub consultant's staff. Identify the project team that will be available until project completion. State the availability of each individual for this project.
- b. Include contact information and a brief summary of the firm's organization and history. Provide a brief profile for each key team member. Provide at least three references (name, title, agency, and telephone number) for the Project Manager and Task Leaders from similar type/size projects.
- c. Include contact information and a brief summary of the sub consultant firms' organization, history, and at least one firm reference for each sub consultant relevant to the staff being proposed for this project.

4. Scope of Work

The Scope of Work section shall include a description of the intended approach to complete the Work Description in Section 3 of this RFP, including a scope of work sufficiently detailed for attachment to a Professional Services Agreement. The Consultant should specify data needs and the expected level of support from SEWD staff and a description of the project deliverables.



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5. Project Schedule

The Consultant shall provide a proposed schedule for all services necessary to complete the project specifying the major tasks, the expected time to complete each task, and the interdependency of the tasks and your expectation of how SEWD guidance/comments will impact the schedule. Indicate your team's ability to perform the services in a timely manner. Indicate the methods and tools used to develop the schedule and the plans to update it throughout the life of the project.

6. Estimated Level of Effort

The Consultant shall provide an estimate of staff time, by task, by key person presented in the project schedule. This section will not include any estimate of costs.

7. Staff Resumes

The Consultant shall present the project members' experience and qualifications. Provide a brief resume of each key team member. Resumes are not included in the proposal page count.

8. Fee Proposal

The Consultant shall provide, in a separately sealed and clearly marked envelope, the estimated cost by task and a total proposed project cost to complete the Scope of Work in the Proposal. The fee proposal shall include a cover letter stating the "not-to-exceed" fee. The fee proposal shall reflect all anticipated fee increases within the duration of the contract. The cost proposal shall identify the billing rates of the individuals anticipated to be used on the project and the estimated expenses including travel and high-end computer use.



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Proposal Evaluation Criteria

The evaluation of each response to this RFP will be based on its demonstrated competence, compliance, format, and organization. The purpose of this evaluation is to identify Consultants that have the interest, capability, and experience to fulfill the Scope of Work. The evaluation will be made according to the following factors:

CRITERIA	DESCRIPTION	PTS
Project Understanding	Project understanding and completeness in Consultant's proposed Scope of Work and reasonableness in Consultant's proposed schedule to accomplish its proposed services.	25
Project Experience	Nature, quality, and relevance of recently completed projects, credentials, and experience of both the firm and key personnel assigned to the Scope of Work.	25
Staff Qualifications	References from previous clients for which similar services were performed by the project team will be evaluated. References shall be provided with agencies of similar size and purpose as SEWD	25
Schedule	Ability to commence work directly after execution of the contract and complete the required work within the proposed amount of time.	15
Cost or Best Value	Reasonableness, completeness, and realism of proposed fees in Consultants proposed budget to accomplish its proposed services	10
TOTAL		100

Selection and Notification

SEWD's selection procedure is designed to provide each competing Consultant a fair and objective assessment of the information submitted in its proposal. The procedure is intended to allow each Consultant equal opportunity to have access to the same information on the Project and procurement process. Information submitted in the proposal will be judged on how well it meets SEWD's objectives. No firm has an advantage in this procurement from previous work or communications with SEWD, nor does SEWD intend during the selection process to confer an advantage on any Consultant.

As determined by SEWD, Consultants who possess the capacity to compete for this contract will be selected to move into the negotiation phase of this process. SEWD reserves the right to interview selected Consultants. Written notification will be sent to these Consultants via mail. Requests for references of individuals will be made only to Consultants selected for the negotiation phase. Consultants shall bear all costs associated with preparing their proposal and potential Board presentation.



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3. WORK DESCRIPTION

3.1 Task Descriptions

1.1.4 Objective

The objective of this Work Description is to provide (furnish and install) new networking equipment and appurtenances for a complete installation, relocate existing servers and networking equipment, terminate new fiber-optic cables, and extend networking cabling as required to implement the design as described in Part 2 – Products, Part 3 – Execution, and the Drawings in Appendix 1.

1.1.5 Network Installation Contractor Qualifications

- a. Certifications/Licenses: C7 or C10 Contractors license in the State of California
- b. References: as a condition of bidding, submit contact name, company, and phone number for 3 recent similar projects involving both fiber and copper networking, preferably for industrial installation.
- c. Registration with California Department of Industrial Relations (DIR)
- d. As this is a prevailing wage project, registration as a Public Works Contractor (PWC) with DIR

1.1.6 Work To Be Done By Others

Configuration of the new and relocated hardware, including VLAN setup and testing, and will be by a separate Configuration Contractor (AllConnected). Coordinate with the Configuration Contractor to arrive at a joint schedule which includes testing and commissioning. Firewall administration will be done by another contractor (Verve Networks).

All required electrical outlets will be installed by the SEWD staff electricians before equipment installation occurs. Provide reasonable advance notice if new outlets are required.

1.1.7 Submittals

Submit the following:

- a. Detailed sequence of construction, with allowance for activities by Configuration Contractor. Include durations of any planned outages. Prior to submittal, coordinate with SEWD, Configuration Contractor, and Verve Networks. Schedule construction activities to avoid impacts to existing networked systems during normal business hours, 8 a.m. to 5 p.m. Monday through Friday. Activities which will affect networked systems more than 15 minutes shall be scheduled after normal business hours.
- b. Catalog cuts for all products to be furnished.
- c. OTDR test results for all strands in cables F10 through F23.



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3.2 Products

1.1.8 Equipment Procurement – General

Equipment and materials will be provided in part by SEWD, the Configuration Contractor, and the Network Installer. Those products to be provided by the Network Installer are designated by the symbol (P) on the following drawings and are specified in paragraph 2.02 below:

1. Ops Basement Server Room, 1 of 2
2. Ops Basement Server Room, 2 of 2
3. Ops Basement MPOE Area,
4. Admin Building,
5. Ice House &
6. Shop Building.

These drawings also indicate that the Installer will install certain SEWD-furnished products and will relocate others as shown.

1.1.9 Equipment Procurement – Specific

Specification for products furnished by the Installer are as follows:

1. Fiber optic patch panels shall be LC connector-based Fiber Optic Termination system, 36 port, comparable to the Corning Plug & Play system.
2. Copper patch panels shall be Category 6, rack mountable type.
3. Cable management shall be front-accessible finger duct with cover, Panduit, APC, or equal.
4. Rack shelves shall be APC, Middle Atlantic, or equal
5. Cat 6 patch cables (quantity and length will be based on walk-through)
6. Cat 6 indoor cables for the wireless access points shown below.
7. Custom-length power cables (quantity and length will be based on walk-through)
8. OM4 MMF (multimode fiber), OM1 MMF, and single mode fiber (SMF) fiber optic patch cables (quantity and length will be based on walk-through)
9. OM4, OM1, and SMF fiber optic cable to cross-connect between the Ops Basement Wall Rack (Rack02) and the Server room (approximately 50' each, to be confirmed during walk-through):
 - a. Cable F18: 24 Strands of OM4 MMF,
 - b. Cable F19: 24 Strands OM1 MMF,
 - c. Cable F20: 24 Strands SMF
10. In the Ice House, between Rack04 and Rack05, provide
 - a. Cable F21: 24 Strands of OM4 MMF,
 - b. Cable F22: 12 Strands OM1 MMF, and
 - c. Cable F23: 12 Strands of SMF
11. At Filter Building and High Service Pump Station, provide plywood backboard, NEMA 12 wall-mounted cabinet with full-length piano-hinge door, 19" rack mounted internally to the cabinet, and fiber optic patch panel. Size rack and panel for at least 4U of unused space. Locate panels where directed during the Mandatory Site Visit.



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12. Server Cabinet seismic hardware to meet California code requirements. Provide APC Part Numbers AR7701 and AR7700 if needed for installation. Provide floor anchors and bolts for the installation.
13. Wall-mounted rack hardware shall meet California code requirements. Provide plywood backboards for all new wall-mounted racks.

3.3 Execution

1.1.10 General

The objective of this project is to migrate from the existing network topology to a new dual-star topology. This new topology is depicted on Sheet 12 (Layer 2 Logical Topology) and Sheet 14 (Physical Network Topology Diagram.)

Coordinate with the **Configuration Contractor** who will configure the switches to meet logical objectives.

Install all copper and fiber cables in accordance with industry best practices including bundling by cable type and lacing at regular intervals.

Firewall administration is the responsibility of a 3rd party, Verve Networks.

Prior to disconnection of any existing network equipment or cables, notify SEWD, the Configuration Contractor, and Verve Networks.

1.1.11 Installation Of Rack-Mounted Equipment

Install rack-mounted equipment as shown on the following drawings:

- a. Ops Basement Server Room (See Drawings 1 & 2)
- b. Ops Basement (See Drawing 3)
- c. Admin Building Switch Closet (See Drawing 4)
- d. Ice House Building (See Drawing 5)
- e. Shop Building (See Drawing 6)

1.1.12 Patch Cable Color Requirements

Patch cable colors shall comply with the following SEWD standards tabulated below. Colors are specified using Pantone numbers. These colors or their equivalent are to be used.

Color Pantone	Indication	Description	SEWD Use
Orange 150C	Demarcation point	Demarcation point (central office termination), Internet connection	Internet (MPOE)
White	First-level backbone	First-level backbone media termination between servers and SANs	Data Center (Servers, SANs)
Gray 422C	Second-level backbone	Second-level backbone media termination between buildings	Distribution (MDF, IDFs)
Green 353C	Network Connection	Termination of network connections on the customer side of the demarcation point	SCADA (WTP)
Brown 465C	Interbuilding Backbone	Interbuilding backbone cable terminations (main cross-connect to remote cross-connects)	SCADA (WS)
Black	Support Equipment	Termination of cables between Data Center and support equipment (UPS, Backup Storage, etc.)	Support (UPS, Backup)
Purple 264C	Common Equipment	Termination of cables originating from common equipment (PBXs, computers, and LANs)	Intranet (Access Layer)
Blue 291C	Horizontal Cabling	Termination of station media; between the Mitel controller and telephone outlets	Telephones (Mitel)
Yellow 101C	Auxiliary Circuits	Termination of auxiliary circuits, i.e., alarms, maintenance, and security circuits	Video Security
Red 184C	TBD	Termination of key telephone systems	

Abbreviation associated with this table are:

ANSI = American National Standards Institute
TIA = Telecommunications Industry Association
EIA = Electronic Industries Alliance
MPOE = Main Point of Entry
SAN = Storage Area Network
MDF = Main Distribution Frame
IDF = Intermediate Distribution Frame
SCADA = Supervisory Control and Data Acquisition
WTP = Water Treatment Plant
WS = Water Supply
UPS = Uninterruptible Power Supply
LAN = Local Area Network
PBX = Private Branch Exchange



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1.1.13 Terminate All Strands Of Owner-Furnished And Contractor-Furnished Fiber Optic Cables

For the 13 cables tabulated below, terminate all strands of the fiber optic cables at both ends at the new fiber patch panels (FPP).

Cables F10 through F17 have been pulled by SEWD and have 12 strands each, 6 multimode (MM) and 6 single mode (SM).

Cables F18 through F20 are described above under Section 2 Products and shall be provided by Contractor.

In addition, provide fiber patch cables at both ends as tabulated below and all additional patch cables, as determined during the site walk.

Finally, provide plywood backboard, wall-mounted racks (18" minimum) along with the FPPs at Low Lift Pump Station, Filter Gallery, and High Service Pump station; locate new racks where directed by SEWD.

Cable	From	To	Patch Cable Strands at "From End"	Patch Cable Strands at "To End"
F10	Ice House	Ops Basement	4 SM from Rack05 FPP to Rack04 (DAT02 Core)	4 SM from Rack 02 to Rack01 (DAT01 Core)
F11	Ice House	Admin Building	2 SM from Rack05 FPP to Rack04 (DAT02 Core)	2 SM to Cisco 9300 Catalyst (DST03)
F12	Ops Basement	Admin Building	2 MM to Rack01 (DAT01 Core)	2 MM to Cisco 9300 Catalyst (DST03)
F13	Ice House	Shop Building	2 MM from Rack05 FPP to Rack04 (DAT02 Core)	2 MM Rack06 to Cisco 9300 Catalyst (DST02)
F14	Low Lift PS	Ops Basement	None	None
F15	Low Lift PS	Ice House	None	None
F16	Filter Gallery	Ice House	None	None
F17	High Service PS	Ice House	None	None
F18	Ops Basement MPOE area	Ops Basement Server Room		
F19	Ops Basement MPOE area	Ops Basement Server Room		
F20	Ops Basement MPOE area	Ops Basement Server Room		
F21	Ice House Rack04	Ice House Rack05		
F22	Ice House Rack04	Ice House Rack05		
F23	Ice House Rack04	Ice House Rack05		



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1.1.14 Special Terminations At Ice House

The currently operational fiber optic network, tabulated below, uses some fiber transceivers for connections to existing switches.

Remove the transceivers at the Ice House for fibers FTR-03 through FTR-14 and provide new terminations as needed for new connections to switch DAT02.

FIBER OPTIC NETWORK

FTB-01	Fiber Termination Block 01		
FTB-02	Fiber Termination Block 02 (ICE)		
FTB-03	Fiber Termination Block 03 (MTS)		
FTR-01	Fiber Transceiver 01	10122	SigmaMax
FTR-02	Fiber Transceiver 02 (MTS)	10131	SigmaMax
FTR-03	Fiber Transceiver 03	10118, Icehouse 1	Perle
FTR-04	Fiber Transceiver 04	10119, Icehouse 2	Perle
FTR-05	Fiber Transceiver 05	10120, Icehouse 3	Perle
FTR-06	Fiber Transceiver 06	10121, Icehouse 4	Perle
FTR-07	Fiber Transceiver 07	OPS Icehouse 5	Perle
FTR-08	Fiber Transceiver 08	OPS Icehouse 6	Perle
FTR-09	Fiber Transceiver 09	Icehouse 1	Perle
FTR-10	Fiber Transceiver 10	Icehouse 2	Perle
FTR-11	Fiber Transceiver 11	Icehouse 3	Perle
FTR-12	Fiber Transceiver 12	Icehouse 4	Perle
FTR-13	Fiber Transceiver 13	Icehouse 5	Perle
FTR-14	Fiber Transceiver 14	Icehouse 6	Perle
FTR-15	Fiber Transceiver 15 (Filter)		
FTR-16	Fiber Transceiver 16 (HS)		SigmaMax
FTR-17	Fiber Transceiver 17 (MTS)		

The following summarizes the planned utilization of fibers for the new core switch at Ice House. Provide patch cables accordingly.

Cable	Strands in Cable			10Gb SM strands to connect to Ops Bldg. core	OM4 links to Ice House
	OM2	OM4	SM		
F03	12				
F03A		6	6	2	
F17		6	6		2
F10		6	6	2	
F11		6	6		2
F13		6	6		2
F15		6	6		2
F16		6	6		2
Totals	12	42	42	4	10



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1.1.15 Fiber Optic Cable Identification And Testing

Identify each cable using machine-lettered heat-shrink type wire markers.

Test cables F10 through F23. Perform OTDR tests for all fibers after installation and including pigtail splices and optional procedures, as stated in ANSI/NETA ATS-2017 American National Standard for Acceptance Testing Specifications.

Submit results in a report in PDF format.

1.1.16 Installation Of Wireless Access Points

Install SEWD-furnished POE-powered interior-type access points. Provide CAT6 cabling to switches in the Admin Building, Ops Building Lower Level, Ops Building Upper Level, and Shop Building as showing in the WiFi Figures 1 through 4 in the Appendix. Configuration and testing of the access points shall be by the Configuration Contractor, but include an allowance of 4 labor-hours to provide troubleshooting assistance.

4. BUDGET & SCHEDULE

All Consultants must fill out the following cost breakdown for their proposal for SEWD's project as described in this RFP. The Consultant must agree to keep these prices valid for 90 days as of the Proposal Due Date.

Fee Proposal

All Consultants must provide an estimated cost summary in the fee proposal that includes all items shown below:

Fee Proposal Summary					
Task Description	Hours	Rate	Subtotal	Expenses	Total
1 – Equipment Procurement					
2 – Equipment Installation					
3 – Fiber Termination					
4 – Wireless Testing					
5 – System Testing					
Project Cost Totals:					

Schedule

All Consultants must provide a project schedule in a GANNT chart form for all tasks.

Invoicing

The Consultant will be paid monthly for services completed during the previous month. The monthly invoice will include a progress report and a billing report showing hours billed by individual, hourly rates, labor subtotal and other expenses. These expenses will be summarized per task and must support the budget summary in the progress report. A sample monthly progress report is shown below.



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SAMPLE MONTHLY PROGRESS REPORT

PROJECT NUMBER

REPORT NUMBER: 1

REPORT PERIOD September 2018

DISTRIBUTE TO Michael Johnson

Planned Work for Period

1. Review Scope of Work (SOW) for Network Installation
2. Schedule interviews for Task 1

Actual Progress and Status

Complete. Notice to Proceed issued _____, 2018.

Started. Initial interviews scheduled for _____, 2018

Additional Unplanned Work

1. None.

Planned Work for Next Period

1. Conduct Discovery interviews.
2. Collect and review existing documentation.
3. Develop draft Network Design Technical Memo.

Problems/Needs

1. None.

Overall Schedule and Budget

1. On schedule.

<u>Task</u>	<u>Budget</u>	<u>This Month</u>	<u>To Date</u>	<u>Remaining</u>
Task 1 – Equipment Procurement				
Task 2 – Equipment Installation				
Task 3 – Fiber Termination				
Task 4 – Wireless Testing				
Task 5 – System Testing				
TOTAL				

Prepared By Consultant Project Manager

Date November 8, 2018



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5. ADDITIONAL INFORMATION

Personal Information

1.1.17 General

Depending on the circumstances, SEWD may require information related to the qualifications, experience and availability of Consultants who are proposed to provide services. This may include, but is not limited to, the Consultant's income statement and balance sheet for each of the two most recently completed fiscal years certified by a public accountant, resumes, documentation of accreditation, and/or letters of reference.

1.1.18 Requested Personal Information

Any personal information that is requested from this RFP by SEWD shall only be used to *consider* the qualified individuals to undertake the project/services and to confirm that the work performed is consistent with these qualifications. It is the responsibility of each Consultant to obtain the consent of such individuals prior to providing the information to SEWD. SEWD will assume that the appropriate consents have been obtained for the disclosure to and use by SEWD of the requested information for the purposes described.

Non-Disclosure Agreement

SEWD reserves the right to require any Consultant to enter into a non-disclosure agreement.

Costs

The RFP does not obligate SEWD to pay for any costs, of any kind whatsoever, which may be incurred as result of this RFP process or any third parties, in connection with this RFP.

Intellectual Property

Proposals shall not include any intellectual property of SEWD including, but not limited to, all logos, registered trademarks, or trade names, at any time without the prior written approval of SEWD, as appropriate.

Respondent's Responses

All materials submitted, including but not limited to proposals, attachments, and supporting documents shall become the property of SEWD and will not be returned.

Governing Law

This RFP and the response shall be governed by the laws of the State of California.

No Liability

SEWD shall not be liable to any, person, or entity for any losses, expenses, costs, claims, or damages of any kind:

- Arising out of, by reason of, or attributable to, the Consultants responding to this RFP; or
- As a result of the use of any information, error, or omission contained in this RFP document or provided during the RFP process.

Entire RFP

This RFP, any addenda to it, and any attached schedules, constitute the entire RFP.



Network Installation RFP

ATTACHMENT A – STANDARD PROFESSIONAL SERVICES AGREEMENT

PROJECT: NETWORK INSTALLATION

THIS AGREEMENT is made and entered into this ____ day of _____, 20__, by and between the Stockton East Water District, a California public agency ("District"), and [INSERT NAME OF COMPANY], a [INSERT TYPE OF BUSINESS; CORPORATION; LIMITED LIABILITY COMPANY; ETC.] ("Consultant").

	District	Consultant
	Stockton East Water District	(Consultant Firm)
Mail to:	P. O. Box 5157 Stockton, CA 95205	(Contact Person) (Title)
Deliver to:	6767 East Main Street Stockton, CA 95215	(Mailing Address) (City, State, ZIP)
Telephone:	(209) 948-0333	(Telephone)
FAX:	(209) 948-0423	(FAX)

1. SERVICES.

Consultant shall perform, at the direction of District, the Scope of Work as described in EXHIBIT "A," attached hereto and incorporated herein by this reference.

2. COMPENSATION.

Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in EXHIBIT "A." The total compensation shall not exceed the Contract Price without District's prior written approval.

Contract Price:

\$XXX,XXX.XX

Consultant shall submit one monthly invoice for its services. Such invoices shall be delineated by task, the person performing the services, and the hourly rate, which shall be stated in time increments of no less than one quarter ($1/4$) hours. District shall pay invoices within thirty (30) calendar days after receipt, if the services specified in the invoice have been satisfactorily completed.

Reimbursable Expenses shall be limited to actual expenditures of Consultant for expenses that are necessary for the proper completion of the Services and shall only be payable if specifically authorized in advance by District. Items shall be separated into Services and Reimbursable Expenses.

Billings that do not conform to the format outlined above shall be returned to Consultant for correction. District shall not be responsible for delays in payment to Consultant resulting from Consultant's failure to comply with the invoice format described above.



Network Installation RFP

3. GENERAL CONDITIONS.

The General Conditions set forth in "ATTACHMENT "B", which include indemnity and insurance requirements, are part of this Agreement. In the event of any conflict between the General Conditions and any terms or conditions of any document prepared or provided by Consultant and made a part of this Agreement, including without limitation any document relating to the scope of services or payment therefor, the General Conditions shall control over said terms or conditions.

4. AUTHORITY.

The person signing this Agreement for Consultant hereby represents and warrants that he/she is fully authorized to sign this Agreement on behalf of Consultant and to bind Consultant to the performance of its obligations hereunder.

5. NOTICES.

Any notices to parties required by this Agreement shall be delivered personally or mailed, U.S. first class postage prepaid, addressed as shown above. Either party may amend its address for notice by giving notice to the other party in writing.

6. ATTACHMENTS.

All ATTACHMENTS referred to herein are attached hereto and are by this reference incorporated as if set forth fully herein.

- Exhibit A – Scope of Work (to be provided by Consultant)
- Exhibit B – General Conditions

7. ACCEPTANCE, the parties hereto execute this Agreement

Accepted by:

Stockton East Water District

(Consultant Firm)

Scot A. Moody
General Manager

Date

(Name)
(Title)

Date

Other authorized representatives:
Michael D. Johnson, Assistant General Manager

8. INSTRUCTIONS

Sign Agreement, provide Certificates of Insurance and return original. Upon acceptance by the Stockton East Water District, a copy will be signed by its authorized representative and promptly returned to you.



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ATTACHMENT B – GENERAL CONDITIONS

GENERAL CONDITIONS

Laws, Regulations and Permits - The Consultant shall give all notices required by law and comply with all laws, ordinances, rules, and regulations pertaining to the conduct of the work. The Consultant shall be liable for all violations of the law in connection with work furnished by the Consultant. If the Consultant performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, the Consultant shall bear all costs arising there from.

Safety - The Consultant shall execute and maintain their work so as to avoid injury or damage to any person or property.

In carrying out their work, the Consultant shall at all times exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed, and be in compliance with all applicable federal, state and local statutory and regulatory requirements including but not limited to State of California, Department of Industrial Relations (Cal/OSHA) regulations, and the U.S. Department of Transportation Omnibus Transportation Employee Testing Act. Safety precautions, as applicable, shall include but shall not be limited to: adequate life protection and lifesaving equipment; adequate illumination; instructions in accident prevention for all employees, such as the use of machinery guards, safe walkways, scaffolds, ladders, bridges, gang planks, confined space procedures, trenching and shoring, fall protection, and other safety devices; equipment and wearing apparel as are necessary or lawfully required to prevent accidents, injuries, or illnesses; and adequate facilities for the proper inspection and maintenance of all safety measures.

Indemnification - To the fullest extent permitted by law, Consultant will immediately defend, indemnify and hold harmless and defend Stockton East Water District, its directors, officers, employees, and authorized volunteers and each of them from and against:

- a. When the law establishes a professional standard of care for Consultant's services, all claims and demands of all persons that arise out of, pertain to, or relate to the Consultant's negligence, recklessness, or willful misconduct in the performance (or actual or alleged non-performance) of the work under this agreement. Consultant shall defend itself against any and all liabilities, claims, losses, damages, and costs arising out of or alleged to arise out of Consultant's performance or non-performance of the work hereunder, and shall not tender such claims to Stockton East Water District nor to its directors, officers, employees, or authorized volunteers, for defense or indemnity.
- b. Other than in the performance of professional services, all claims and demands of all persons arising out of the performance of the work or the furnishing of materials; including but not limited to, claims by the Consultant or Consultant's employees for damages to persons or property except for the sole negligence or willful



Network Installation RFP

misconduct or, with respect to construction, the active negligence of Stockton East Water District, its directors, officers, employees, or authorized volunteers.

- c. Any and all actions, proceedings, damages, costs, expenses, penalties or liabilities, in law or equity, of every kind or nature whatsoever, arising out of, resulting from, or on account of the violation of any governmental law or regulation, compliance with which is the responsibility of Consultant.
- d. Any and all losses, expenses, damages (including damages to the work itself), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect, or refusal of Consultant to faithfully perform the work and all of the Consultant's obligations under the agreement. Such costs, expenses, and damages shall include all costs, including attorneys' fees, incurred by the indemnified parties in any lawsuit to which they are a party.

Consultant shall immediately defend, at Consultant's own cost, expense and risk, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against Stockton East Water District or any of its directors, officers, employees, or authorized volunteers.

Consultant shall pay and satisfy any judgment, award or decree that may be rendered against Stockton East Water District or any of its directors, officers, employees, or authorized volunteers, in any and all such aforesaid suits, actions, or other legal proceedings.

Consultant shall reimburse Stockton East Water District or its directors, officers, employees, and authorized volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided.

Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Stockton East Water District or its directors, officers, employees, or authorized volunteers.

INSURANCE REQUIREMENTS

Workers' Compensation and Employer's Liability Insurance - The Consultant and all sub-consultants shall cover or insure under the applicable laws relating to workers' compensation insurance, all of their employees employed directly by them or through sub-consultants in carrying out the work contemplated under this contract, all in accordance with the "Workers' Compensation and Insurance Act", Division IV of the Labor Code of the State of California and any Acts amendatory thereof. The Consultant shall provide employer's liability insurance with limits of no less than \$1,000,000 each accident, \$1,000,000 disease policy limit, and \$1,000,000 disease each employee. The Workers' Compensation Policy shall be endorsed with a waiver of subrogation in the favor of the Stockton East Water District for all work performed by the Consultant, its employees, agents and sub-Consultants.

Workers' Compensation Insurance - By their signature hereunder, Consultant certifies that they are aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and they will



Network Installation RFP

comply with such provisions before commencing the performance of the work of this agreement.

Liability Insurance - The Consultant shall provide and maintain at all times during the performance of the work under this agreement, the following commercial general liability, professional liability and automobile liability insurance:

Coverage - Coverage shall be at least as broad as the following:

1. Coverage for Professional Liability appropriate to the Consultant's profession covering Consultant's wrongful acts, negligent actions, errors or omissions. The retroactive date (if any) is to be no later than the effective date of this agreement. Consultant shall maintain such coverage continuously for a period of at least five years after the completion of the contract work. Consultant shall purchase a five-year extended reporting period i) if the retroactive date is advanced past the effective date of this Agreement; ii) if the policy is canceled or not renewed; or iii) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement.
2. Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 0001)
3. Insurance Services Office (ISO) Business Auto Coverage (Form CA 0001), covering Symbol 1 (any auto)

Limits - The Consultant shall maintain limits no less than the following:

1. Professional Liability - Two million dollars (\$2,000,000) per claim and annual aggregate.
2. General Liability - Two million dollars (\$2,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit or products-completed operations aggregate limit is used, either the general aggregate limit shall apply separately to the project/location (with the ISO CG 2503, or ISO CG 2504, or insurer's equivalent endorsement provided to Stockton East Water District) or the general aggregate limit and products-completed operations aggregate limit shall be twice the required occurrence limit.
3. Automobile Liability - One million dollars (\$1,000,000) for bodily injury and property damage each accident limit.
4. Excess Liability (if necessary) - The limits of Insurance required in this agreement may be satisfied by a combination of primary and umbrella or excess Insurance. Any umbrella or excess Insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the District (if agreed to in a written contract or agreement) before the District's own primary or self-Insurance shall be called upon to protect it as a named insured.

Required Provisions - The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:



Network Installation RFP

1. Stockton East Water District, its directors, officers, employees, and authorized volunteers are to be given insured status at least as broad as ISO endorsement CG 2010 11 85; or both CG 20 10 10 01 and CG 20 37 04 13 (or the CG 20 10 04 13 (or earlier edition date) specifically naming all of the District parties required in this agreement, or using language that states "as required by contract"). All Sub-Consultants hired by Consultant must also have the same forms or coverage at least as broad; as respects (via CG 20 38 04 13): liability arising out of activities performed by or on behalf of the Consultant; and premises owned, occupied or used by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to Stockton East Water District, its directors, officers, employees, or authorized volunteers.
2. For any claims related to this project, the Consultant's insurance shall be primary insurance as respects Stockton East Water District, its directors, officers, employees, or authorized volunteers. Any insurance, self-insurance, or other coverage maintained by Stockton East Water District, its directors, officers, employees, or authorized volunteers shall not contribute to it using the ISO endorsement CG 20 01 04 13 or coverage at least as broad.
3. Any failure to comply with the reporting or other provisions of the policies including breaches and warranties shall not affect coverage provided to Stockton East Water District, its directors, officers, employees, or authorized volunteers.
4. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

Such liability insurance shall indemnify the Consultant and their sub-consultants against loss from liability imposed by law upon, or assumed under contract by, the Consultant or their sub-consultants for damages on account of such bodily injury (including death), property damage, personal injury, completed operations, and products liability.

The general liability policy shall cover bodily injury and property damage liability, owned and non-owned equipment, blanket contractual liability, and completed operations liability. The automobile liability policy shall cover all owned, non-owned, and hired automobiles.

Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the Stockton East Water District. All of the insurance shall be provided on policy forms and through companies satisfactory to Stockton East Water District.

Deductibles and Self-Insured Retentions - Insurance deductibles or self-insured retentions must be declared by the Consultant, and such deductibles and retentions shall have the prior written consent from Stockton East Water District. At the election of Stockton East Water District the Consultant shall either 1) reduce or eliminate such deductibles or self-insured retentions, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named or additional insureds, co-insurers, and/or insureds other than the First Named Insured.



Network Installation RFP

Acceptability of Insurers - Insurance is to be placed with insurers having a current A.M. Best rating of no less than A:VII or equivalent or as otherwise approved by Stockton East Water District.

Evidences of Insurance - Prior to execution of the agreement, the Consultant shall file with Stockton East Water District a certificate of insurance (Acord Form 25 or equivalent) signed by the insurer's representative evidencing the coverage required by this agreement. Such evidence shall include an additional insured endorsement signed by the insurer's representative and evidence of waiver of rights of subrogation against Stockton East Water District (if builder's risk insurance is applicable). Such evidence shall also include (1) attached additional insured endorsements with primary & non-contributory wording, (2) Workers' Compensation waiver of subrogation, and (3) a copy of the CGL declarations or endorsement page listing all policy endorsements, and confirmation that coverage includes or has been modified to include Required Provisions above. The District reserves the right to obtain complete, certified copies of all required insurance policies, at any time. Failure to continually satisfy the Insurance requirements is a material breach of contract.

The Consultant shall, upon demand of Stockton East Water District, deliver to Stockton East Water District such policy or policies of insurance and the receipts for payment of premiums thereon.

Continuation of Coverage - If any of the required coverages expire during the term of this agreement, the Consultant shall deliver the renewal certificate(s) including the general liability additional insured endorsement to Stockton East Water District at least ten (10) days prior to the expiration date.

Sub-consultants - In the event that the Consultant employs other consultants (sub-consultants) as part of the services covered by this agreement, it shall be the Consultant's responsibility to require and confirm that each sub-consultant meets the minimum insurance requirements specified above.

Stockton East Water District reserves the right to modify these insurance requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage or other circumstances.

OTHER CONDITIONS

Assignment or Transfer - Consultant is employed to perform unique personal services. Consultant shall not assign this Agreement without the prior written consent of District. Consultant shall not employ or otherwise incur any obligation to pay other specialists or experts for services in connection with this Agreement, without prior written consent of District.

Independent Contractor - Consultant shall act as an independent contractor and covenants and agrees that it will conduct itself consistent with such status, that it will neither hold itself out as, nor claim to be, an officer or employee of District by reason of this Agreement.



Network Installation RFP

Attorney's Fees, Venue, Governing Law - If either party commences any legal action against the other party arising out of this Agreement or the performance hereof, the prevailing party in such action shall be entitled to recover its reasonable litigation expenses, including but not limited to, court costs, expert witness fees, discovery expenses, and attorney's fees. Any action arising out of this Agreement shall be brought in San Joaquin County, California, regardless of where other venues may lie. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

Termination of Agreement - District may terminate this Agreement without cause by giving Consultant ten (10) calendar days advance written notice from the General Manager. Consultant may terminate this Agreement without cause by giving District thirty (30) calendar days advance written notice. In the event of termination through no fault of Consultant, District shall compensate Consultant for services performed as of the date of termination, upon the release to District of all Material hereunder, in any and all media or formats in which such materials have been created or are maintained. District retains the right to receive and use any Material, notwithstanding any termination or any dispute regarding the amount to be paid.

Copyright, Ownership and Use of Materials - All tangible material ("Material") created or delivered pursuant to this Agreement is considered a work made for hire under the Copyright Act. To the extent such Material does not qualify as a work made for hire, Consultant hereby assigns to District all right, title, and interest, including but not limited to all copyrights, in all Material created by Consultant in its performance under this Agreement. Material constitutes the scope of work outlined in EXHIBIT "A" and attached hereto, and all written and other tangible expressions, including but not limited to, drawings (including computer aided drawings), papers, documents, reports, surveys, renderings, exhibits, sketches, maps, models, prints, paintings or photographs, in any and all media or formats in which such materials have been created or are maintained. All Material furnished by Consultant is, and shall remain, the property of District.

Prevailing Wage – This project is a Public Works project per Labor Code section 1720 and is subject to compliance monitoring and enforcement by the California (CA) Department of Industrial Relations (DIR). All labor working on Public Works Project must be paid prevailing wages as determined by DIR. Failure to comply with public works requirements can result in civil penalties, criminal prosecution, or both as determined by DIR.



Network Installation RFP

APPENDIX 1 – DRAWING LIST & DRAWINGS

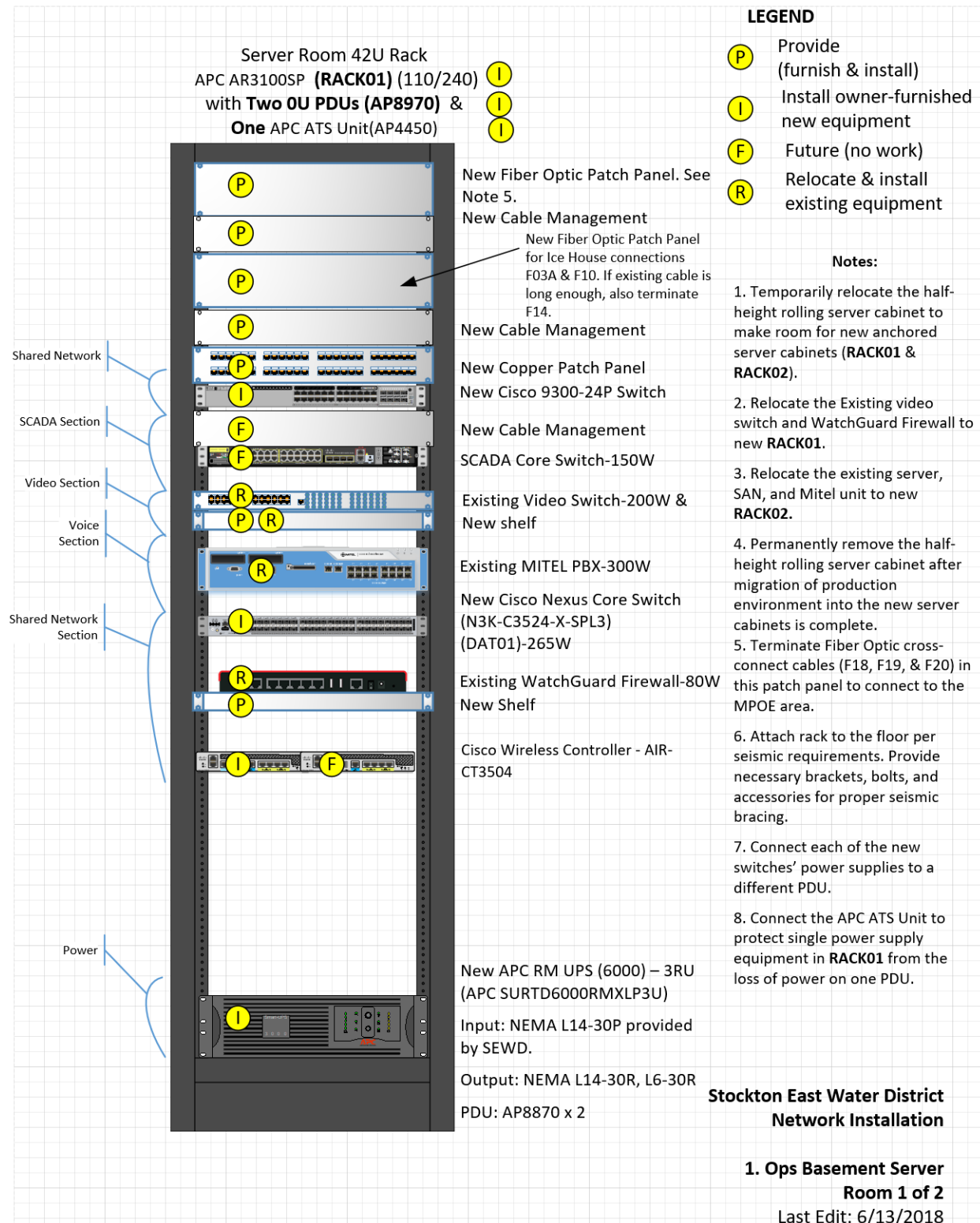


Network Installation RFP

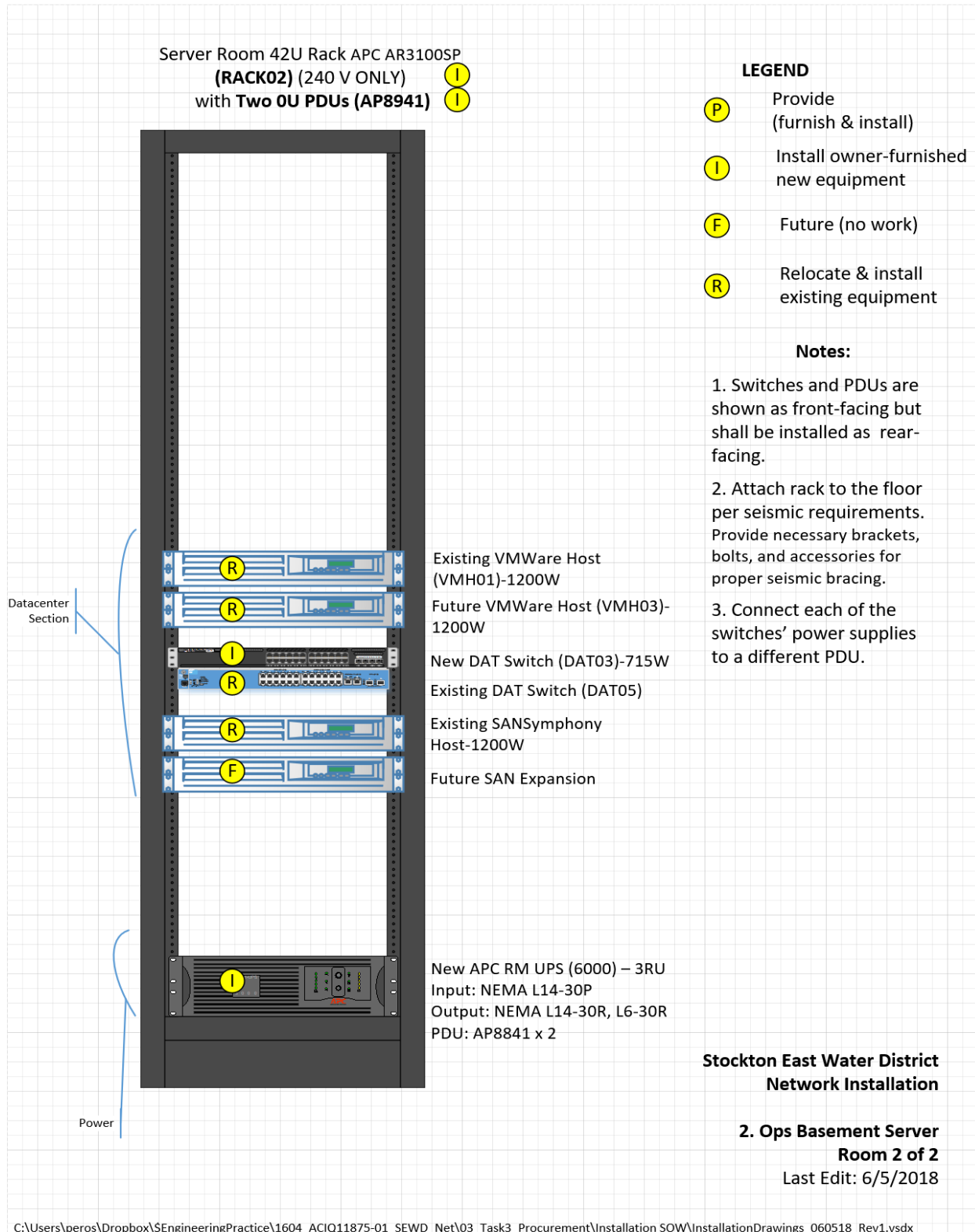
Drawing List

Drawing	Title
1.	Ops Basement Server Room 1 of 2
2.	Ops Basement Server Room 2 of 2
3.	Ops Basement MPOE Area
4.	Admin Building
5.	Ice House
6.	Shop Building
Sheet 12	Layer 2 Logical Topology
Sheet 14	Physical Network Topology Diagram
WiFi 1	New WiFi Access Points, Admin Building; connect to new Cisco 9300 in Rack03
WiFi 2	New WiFi Access Points, Ops Building, Lower Level; connect to switch DAT01 in Rack01
WiFi 3	New WiFi Access Points, Ops Building, Upper Level; connect to switch DAT01 in Rack01
WiFi 4	New WiFi Access Points, Shop Building; connect to Cisco Catalyst Switch in Rack06
G-1	General Site Plan
2	Network Design Diagram, Network Interconnections
Scenario 1	Buildings with both Stratix and Cisco Switches
Scenario 2	Buildings with Only Stratix Switches
Scenario 3	Buildings with Only Cisco Switches
-	SCADA VLAN Assignments

1. Ops Basement Server Room 1 of 2

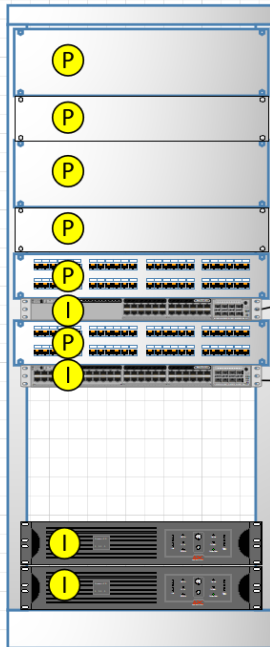


2. Ops Basement Server Room 2 of 2



3. Ops Basement MPOE Area

New Wall Mount Rack on or near
Telco MPOE (RACK02) **I**
Middle Atlantic wall mount 26RU
Rack(CWR-26-26PD)



Existing Fiber Optic
Terminations. See Note 5.

New Cable Management

New Fiber Optic
Terminations

New Cable Management

New Copper Patch Panel

New Ops Switch 1:
Cisco C9300-24P-E
New Copper Patch Panel

New Ops Switch 2:
Cisco C9300-48P-E

New APC RM UPS #1

New APC RM UPS #2
SMT1500R2-NMC,
typical of 2

LEGEND

- P** Provide (furnish & install)
- I** Install owner-furnished new equipment
- F** Future (no work)
- R** Relocate & install existing equipment

Notes:

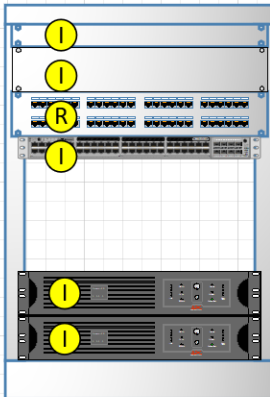
1. Temporarily move the 4-post rack to make room for the new wall-mount rack (if needed).
2. Permanently remove 4-post rack after all production equipment has been migrated into the new racks.
3. Install new rack on existing backboard
4. Re-terminate all existing copper Ethernet cables in the new copper patch panel and provide short CAT6 patch cables for the connections to new Ops Switch 1 and Ops Switch 2
5. Terminate the following fiber optic cable here:
 - a. 15 (field verify) cables for existing CCTV cameras
 - b. Fibers F01, F02, F04, F05, F06, F07, F08
 - c. New fibers (verify that they don't go to server room already) F03A, F10, F12, and F14.
 - d. Terminate Fiber Optic cross-connect cables (F18, F19, & F20) in one of the patch panels to connect to the Server Room.
6. As part of the commissioning of the new networking system, coordinate with SEWD and the Configuration Contractor to disconnect cables E01 (connection to Administration Building) and E02 (connection to Low Lift Pump Station).
7. For reconnection of video and phone system fibers and cables, give 48 hours' prior notice to SEWD so arrangements can be made to provide technical support.
8. All equipment will be installed front-facing and connected directly to the UPS units.
9. Use short CAT 6 patch cables to maintain cable management.

**Stockton East Water District
Network Installation**

3. Ops Basement MPOE Area
Last Edit: 6/6/2018

4. Admin Building

New Admin Building
Wall-Mount Rack, no
doors or sides.
(RACK03) **I**



New Fiber Patch Panel
New Cable Management
Existing Copper Patch Panel
New Cisco 9300 Catalyst
switch (C9300-48P-E)

New APC RM UPS #1

New APC RM UPS #2
SMT750R2-NMC, typical
of 2



Rack 03 catalog
image: Middle Atlantic
WM-15-18

LEGEND

- P** Provide
(furnish & install)
- I** Install owner-furnished
new equipment
- F** Future (no work)
- R** Relocate & install
existing equipment

Notes:

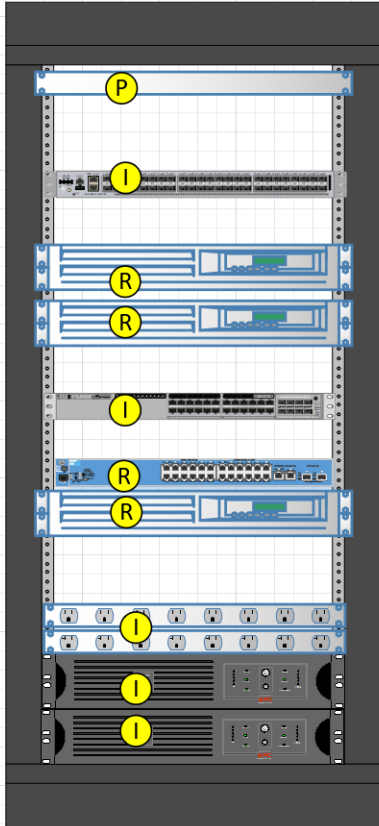
1. Temporarily relocate existing network switches (1 data and 1 voice) to clear wall space for the new rack.
2. Permanently remove existing network switches (1 data and 1 voice) after migration is complete. All removed equipment shall be stacked in the Ops Building basement outside of the server room in an area designated by SEWD staff.
3. Install RACK03 on the existing backboard. The rack shall be installed in a way that will accommodate existing cables and the existing patch panel
4. Connect each of the two power supplies of the switches to a different UPS.
5. Provide SEWD 48 hours' prior notice before migrating phone connections from the existing to the new switch to allow for coordination of phone system support.
6. Utilize existing copper patch panel to avoid re-termination of cable if that is feasible.
7. Terminate new fiber optic strands into the new fiber optic patch panel.

**Stockton East Water District
Network Installation**

4. Admin Building
Last Edit: 6/6/2018

5. Ice House

Existing 21RU Server Cabinet (**RACK04**)



New Fiber Patch Panel (to RACK05)

New Cisco Nexus Core Switch (N3K-C3524-X-SPL3) (DAT02)-265W

Existing Synology NAS (Backups)

Existing VMWare Host (VMH02)

New Cisco 9300-24P-E Switch (DAT04) - Rear Facing

Existing DAT Switch (DAT06) - Rear Facing
Existing SANSymphony Host

New APC Horiz. PDU's - Rear Facing

New APC RM UPS #1

New APC RM UPS #2

LEGEND

- (P) Provide (furnish & install)
- (I) Install owner-furnished new equipment
- (F) Future (no work)
- (R) Relocate & install existing equipment

Notes:

1. Temporarily relocate equipment in the existing rolling server cabinet (**Rack 04**) and Wall-mount cabinet (**Rack 05**) to make room for new equipment and to accommodate the new arrangements.

2. Connect the two power supplies of each of the switches to a different UPS.

3. Extend 2 power circuits from the UPS's in RACK04 to RACK05 for redundant supply to DAT2

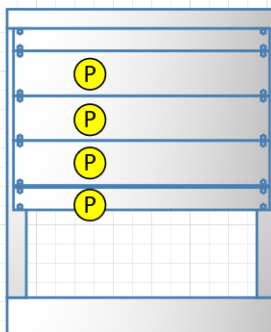
4. Switches and PDUs are shown as front-facing but shall be installed as rear-facing.

5. Secure fiber interconnects between Rack04 and Rack05 to resist damage caused by Rack04 rolling.

ICE HOUSE SERVER RACK (**IHSR**)

See Sheet 11

Existing Wall-Mount Swing Rack (**RACK05**)



Existing Fiber Patch Panel
New Cable Management

New Fiber Patch Panel
New Cable Management
New Fiber Patch Panel (to RACK04)

ICE HOUSE DEMARCATION POINT (**IHDP**)

See Sheet 11

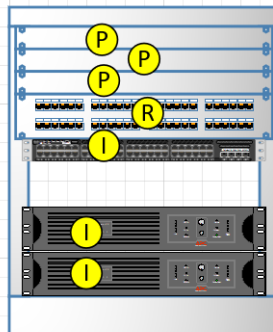
**Stockton East Water District
Network Installation**

5. Ice House

Last Edit: 6/5/2018

6. Shop Building

Existing Wall-Mount
Swing Rack (RACK06)



New Fiber Patch Panel
New Fiber Patch Panel
New Cable Management
Existing Patch Panel
New Cisco C9300-24P-E. See Note 4.

New APC RM UPS #1
(SMT1500R2-NMC)
New APC RM UPS #2
(SMT1500R2-NMC)

LEGEND

- P** Provide (furnish & install)
- I** Install owner-furnished new equipment
- F** Future (no work)
- R** Relocate & install existing equipment

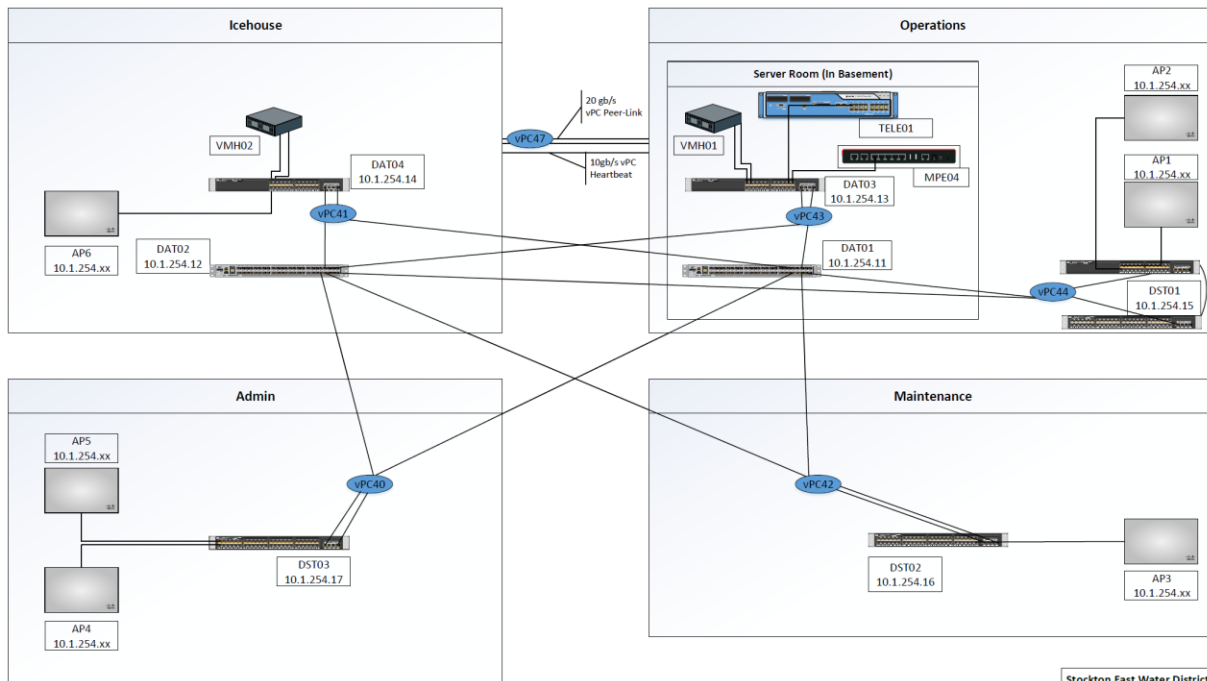
Notes:

1. Temporarily relocate equipment in the existing wall cabinet to make room for the new equipment and for construction for the new arrangement. SEWD will provide a temporary shelf or other surface for the relocated equipment.
2. The existing fibers shall all, except for DH+, plug into the new Cisco Catalyst switch.
3. The existing admin an video switches will be replaced by the new Cisco Catalyst.
4. Configuration Contractor shall provide C9300 transceiver module necessary to replace the existing transceiver bank.

**Stockton East Water District
Network Installation**

6. Shop Building
Last Edit: 6/5/2018

Sheet 12 – Layer 2 Logical Topology



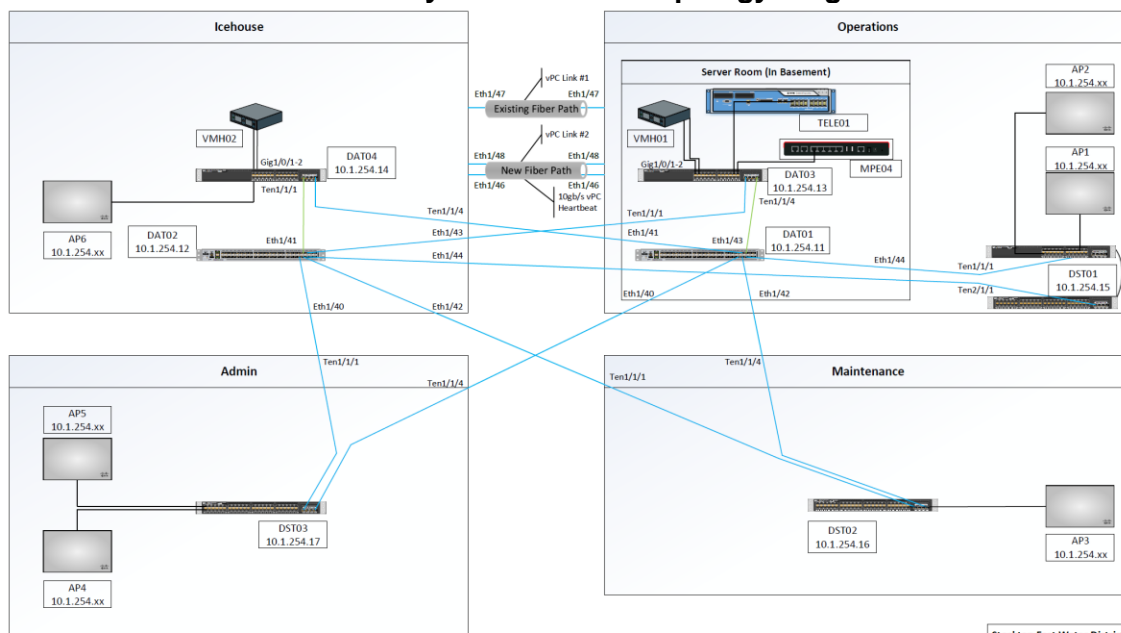
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Stockton East Water District
Network Design

Sheet 12 Layer 2 Logical Topology

Last Edit: 8/12/2016

Sheet 14 – Physical Network Topology Diagram



Cable Speed Legend:
Aqua = 10gb Fiber
Green = 10gb Copper
Red = 1gb Fiber
Black = 1gb Copper

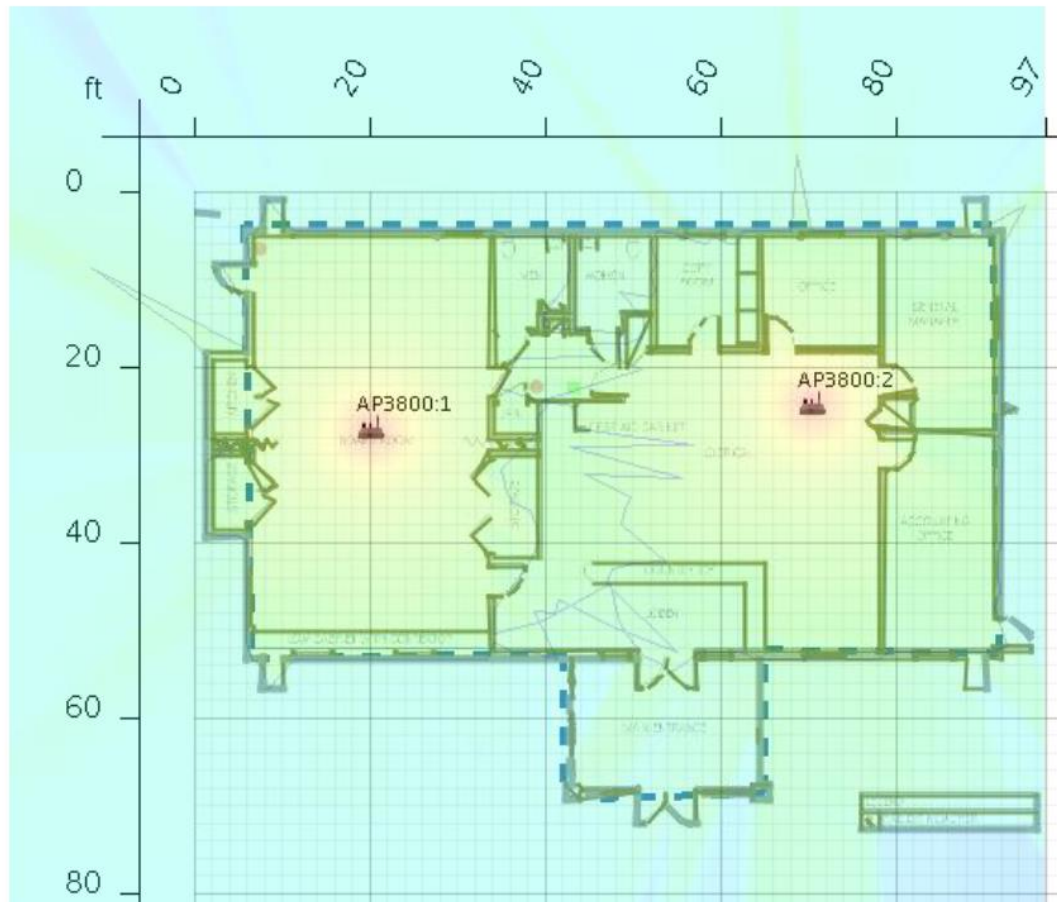
NOTE: See Sheet 18 for physical topology of Storage Network

Stockton East Water District
Network Design

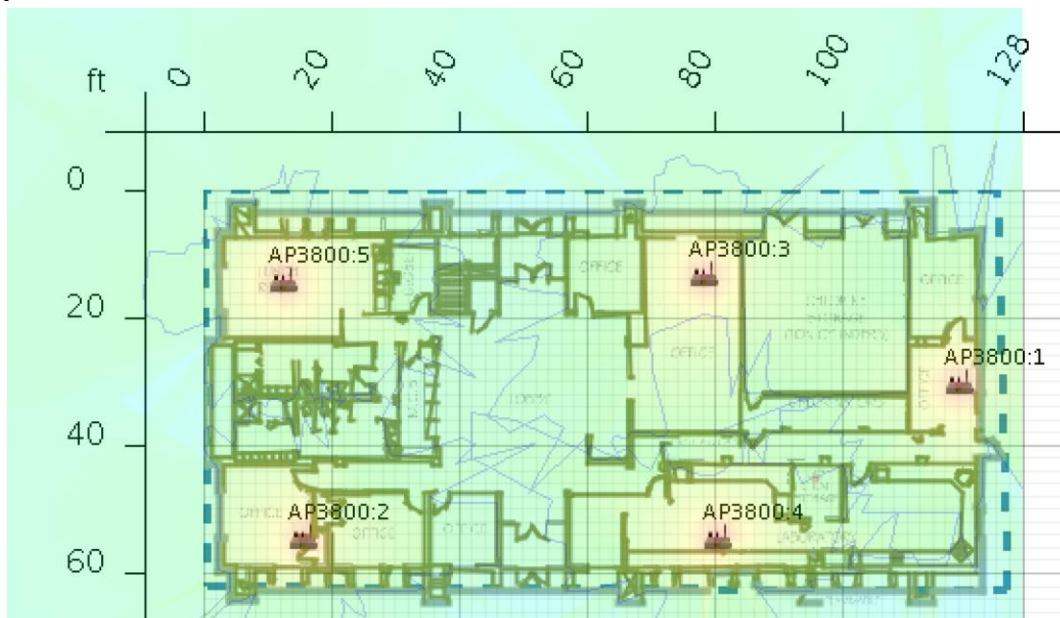
Sheet 14 Physical Network Topology Diagram

Last Edit: 8/12/2016

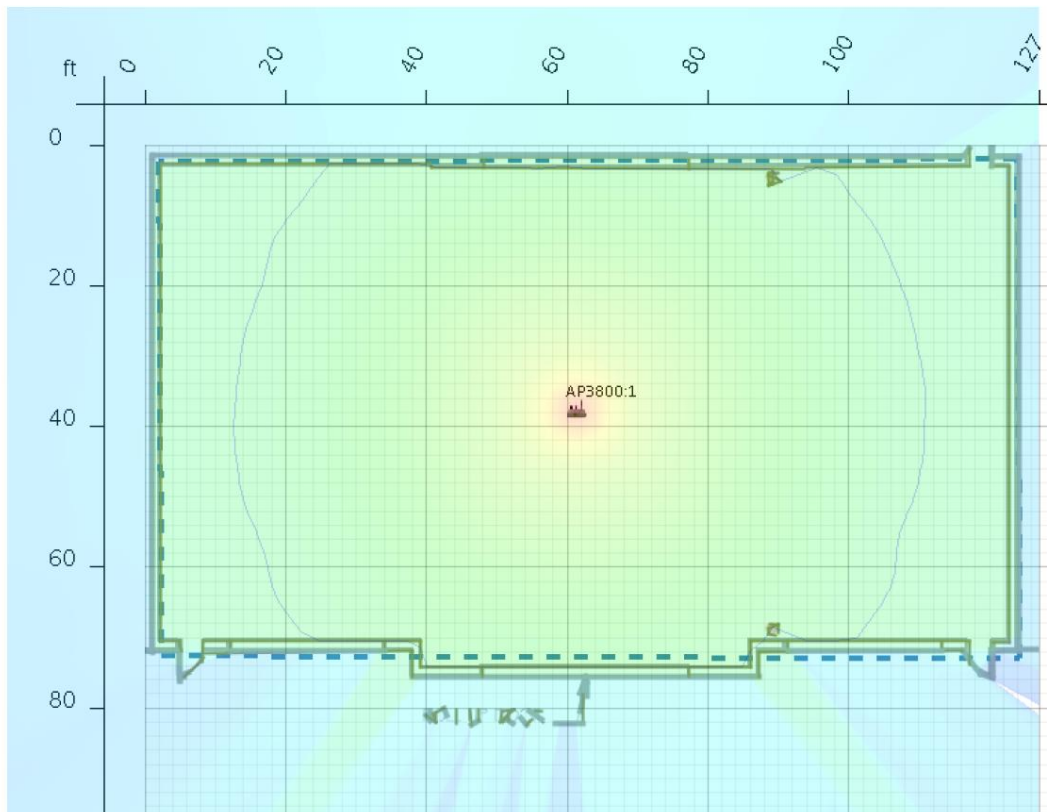
WiFi 1 – New WiFi Access Points, Admin Building; connect to new Cisco 9300 in Rack03



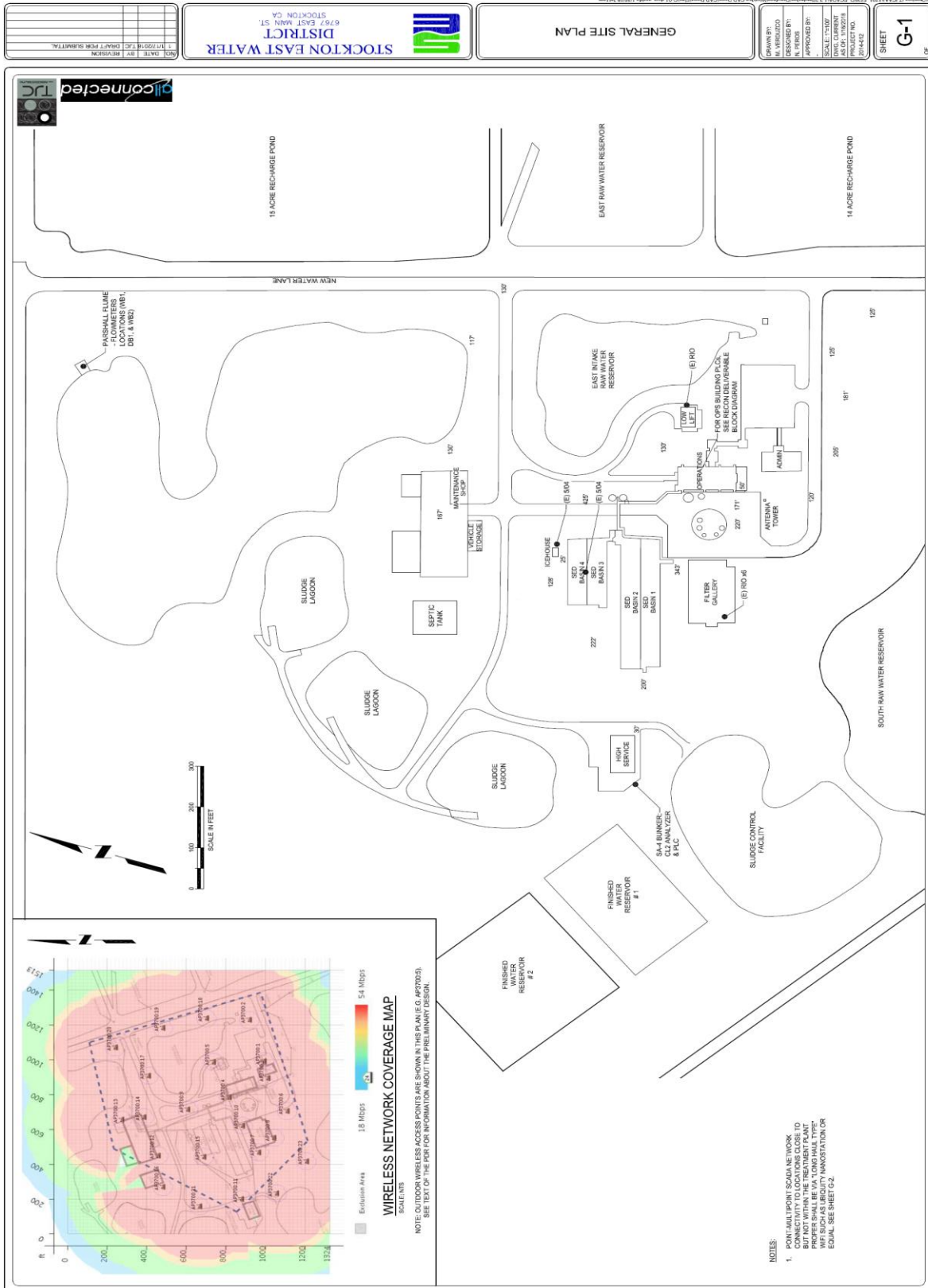
WiFi 3 – New WiFi Access Points, Ops Building, Upper Level; connect to switch DAT01 in Rack01



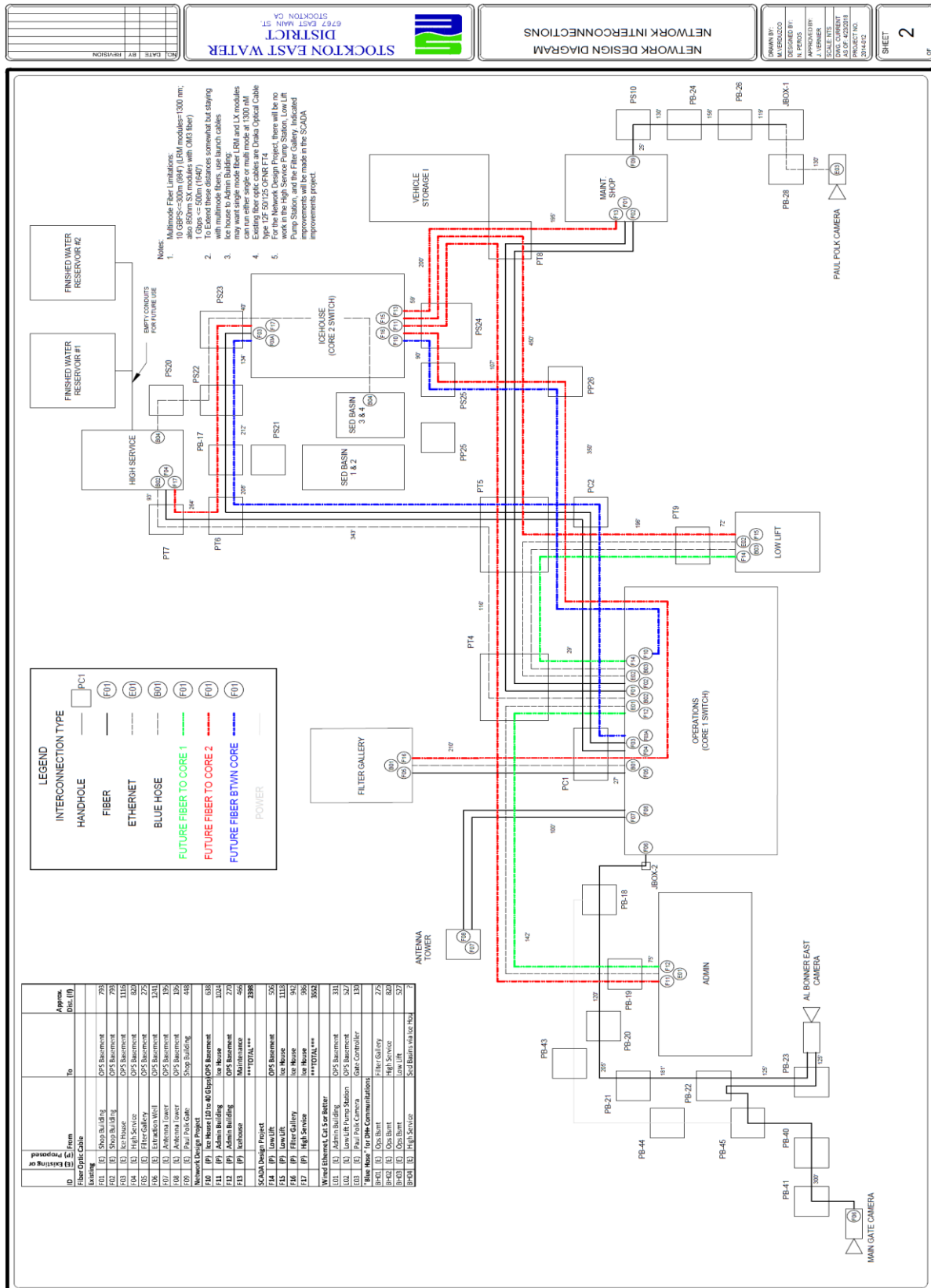
WiFi 4 – New WiFi Access Points, Shop Building; connect to Cisco Catalyst Switch in Rack06



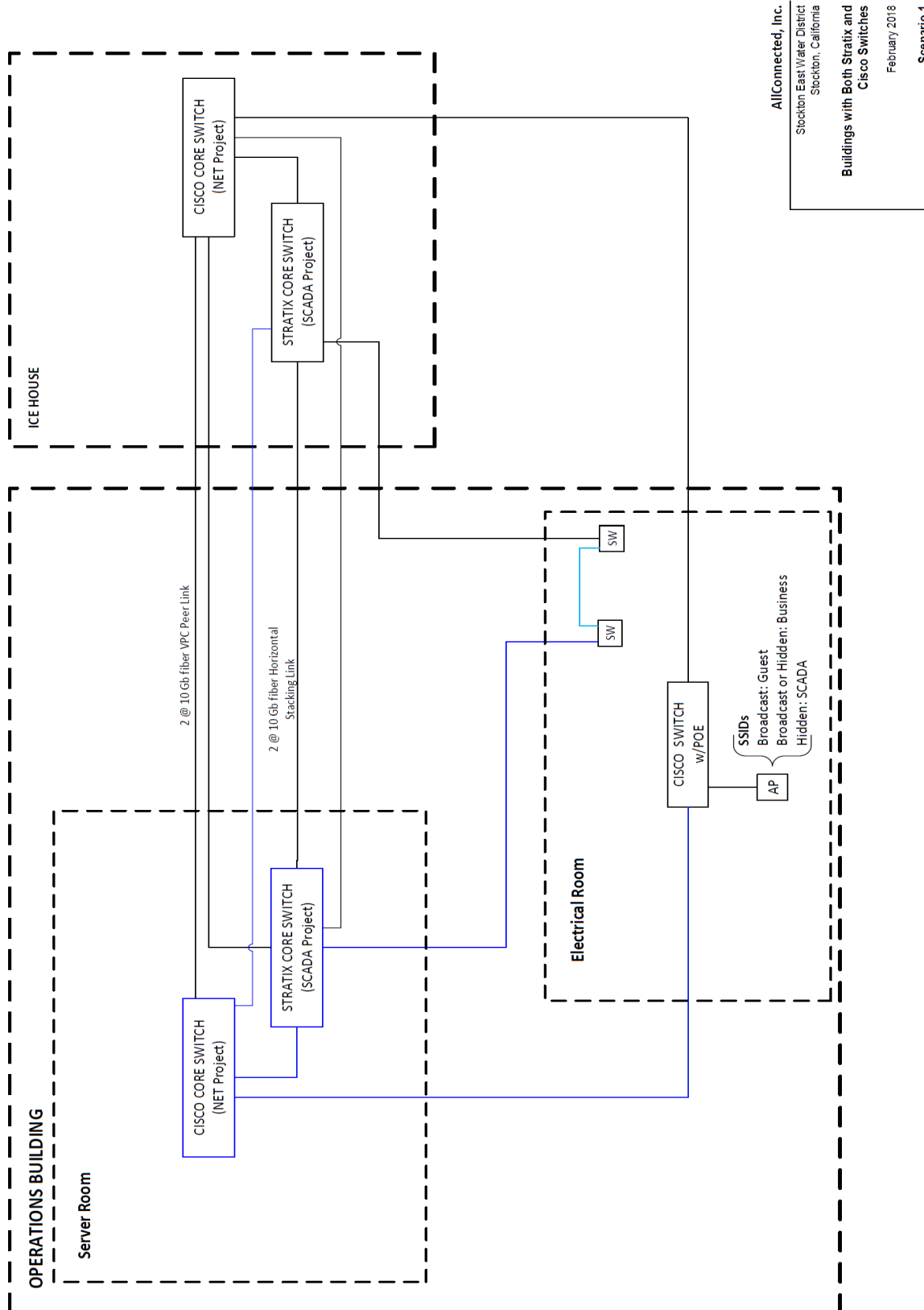
G-1 – General Site Plan



2 – Network Design Diagram, Network Interconnections

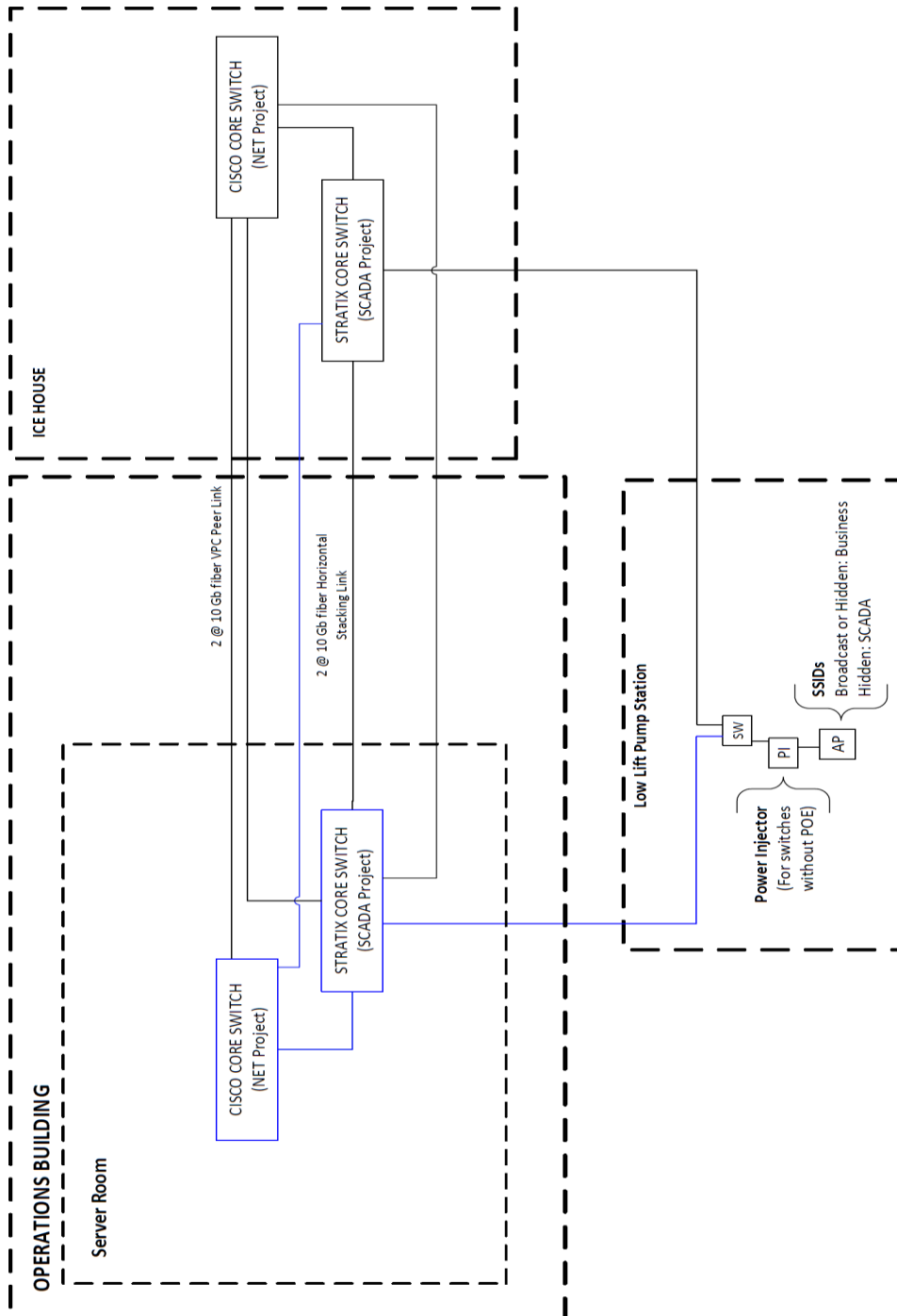


Scenario 1 – Buildings with both Stratix and Cisco Switches



c:\users\perios\dropbox\engineering\practice\1701_sewd_scada\1.2.2\pre-design\drawings\wireless example drawing v3.vsdx
Last Edited: 2/27/2018 2:31 PM

Scenario 2 – Buildings with Only Stratix Switches



AllConnected, Inc.

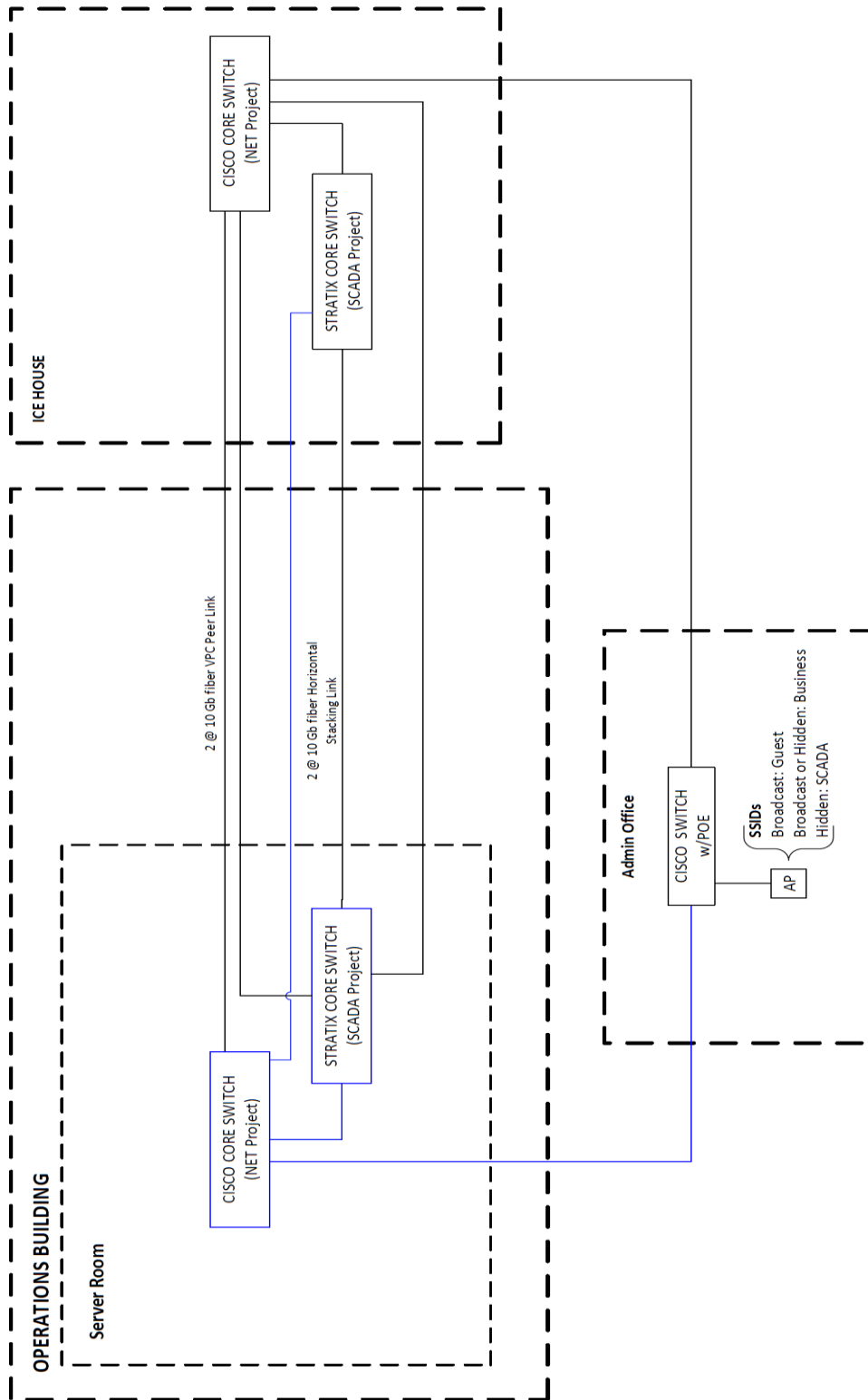
Stockton East Water District
Stockton, California

Buildings with Only Stratix
Switches

February 2018

Scenario 2

Scenario 3 – Buildings with Only Cisco Switches



AllConnected, Inc.

Stockton East Water District
Stockton, California

Buildings with Only Cisco
Switches

February 2018

Scenario 3

SCADA VLAN Assignments

AllConnected, Inc.

SEWD VLAN Assignments - 90% Submittal

Vlan Name	Vlan Number	New/Existing?	Subnet	Default GW	Subnet Description	Internally Firewallled?	Internet access?
Business_Servers	10 New		10.1.10.0/24	10.1.10.1	Business Servers	No	Yes
Business_Wkstns	20 New		10.1.20.0/24	10.1.20.1	Business Workstations(Wired)	No	Yes
Business_Wireless	21 New		10.1.21.0/24	10.1.21.1	Business Wireless (802.1x)	No	Yes
Voice	30 New		10.1.30.0/24	10.1.30.1	Campus Voice	No	No
iScsi1	51 New		10.1.51.0/24		iScsi Network #1	No	No
iScsi2	52 New		10.1.52.0/24		iScsi Network #2	No	No
iScsi3	53 New		10.1.53.0/24		DataCore iScsi Direct Path #1	No	No
iScsi4	54 New		10.1.54.0/24		DataCore iScsi Direct Path #2	No	No
Video	100 New		10.1.100.0/24	10.1.100.1	Campus Video	No	No
SCADA_Servers	200 New		10.1.200.0/24	10.1.200.1	SCADA Systems Virtual Servers	Yes	No
SCADA_Wkstns	210 New		10.1.210.0/24	10.1.210.1	SCADA Systems Operator Wkstns	Yes	No
SCADA_Wireless	211 New		10.1.211.0/24	10.1.211.1	SCADA Systems Tablets/Laptops	Yes	No
SCADA_PLIC	220 New		10.1.220.0/24	10.1.220.1	SCADA PLC's	Yes	No
Network_Mgmt	254 New		10.1.254.0/24	10.1.254.1	Business and Datacenter Management	Yes	No
Public_Transit	255 New		10.1.255.0/27	10.1.255.1		No	No
Private_Transit	256 New		10.1.255.32/27	10.1.255.33		No	No
Guest_Wireless	999 New		172.16.99.0/24	172.16.99.1	Guest Wifi Users	Yes	Yes
Old_Business	300 Existing		192.168.0.0/24	192.168.0.1	Business and Datacenter network	No	Yes
Old_Video	301 Existing		192.168.100.0/24	192.168.100.1	Video Network	No	No, only CCTV-01 has access via a secondary NIC
Old_Iscsi1	302 Existing		10.10.10.0/24	N/A	iScsi Network #1	No	No
Old_Iscsi2	303 Existing		10.10.20.0/24	N/A	iScsi Network #2	No	No
Old_Iscsi3	304 Existing		10.1.1.0/24	N/A	DataCore iScsi Direct Path #1	No	No
Old_Iscsi4	305 Existing		10.2.2.0/24	N/A	DataCore iScsi Direct Path #2	No	No
Old_Scada	306 Existing		130.130.130.0/24	N/A	SCADA IP Network	No	No